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REMARKS

Claims 1-9 and 19-23 are in the case. Claim 9 is rejected under 35 USC § 112. Claims 1-2 and 5-9 are rejected under 35 USC § 103 over USPN 5,736,791 to Fujiki et al., and claims 3 and 19-23 are rejected under 35 USC § 103 over Fujiki et al. in view of USAN 2003/0071361 to Kane et al.

Claim 1 has been amended by including within it the limitations previously contained in claim 3, and claim 19 has been amended by including within it the limitations previously contained in claim 20. Thus, claim 1 is now effectually the same as claim 3 (now canceled), and claim 19 is now effectually the same as claim 20 (now canceled). Both claim 3 and claim 20 have previously been searched and considered by the examiner, so no further searching or consideration is necessary in light of the amendments, and there is no reason for the amendments to not be entered. Further, entry of the amendments both reduces the number of claims and the issues that might be presented for appeal. Therefore, Patent Office policy favors the entry of these amendments. Obviously, no new matter has been introduced by the amendments, which are supported by the disclosure of the original claims. Reconsideration and allowance of the claims are respectfully requested.

CORRECTION

The attorney docket number continues to be incorrectly listed as 01-689 in the office actions. Applicants respectfully renew their request that the attorney docket number please be corrected to 00-689.

CLAIM REJECTIONS UNDER §112

Claim 9 is rejected because of an “insufficient antecedent basis for ‘an integrated circuit’ or ‘the improvement,’” both of which are recited in the preamble of the claim. MPEP 2173.05(e) states “Obviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992).” Applicants assert

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that the scope of the claim is reasonably ascertainable by those skilled in the art, and that standard claim language has been used. The examiner is invited to offer more specific rejections, citing authority, if the rejections are to be maintained.

CLAIM REJECTIONS UNDER §103

Claims 1-2 and 5-9 are rejected over Fujiki et al. Independent claim 1 has been amended to recite the additional limitations of claim 3. Therefore, these rejections of claim 1 and claims 2 and 5-9, which depend from claim 1, are moot. Claims 3 and 20 were rejected under Fujiki et al. in view of Kane et al. As claims 1 and 19 (the only independent claims) are now the same as claims 3 and 20, respectively, applicants respond to the patentability of the claims in light of the rejections made under Fujiki et al. in view of Kane et al.

Independent claim 1 claims, *inter alia*, a bonding pad for an integrated circuit, with a conductive base layer having slots, an insulating layer disposed on top of the conductive base layer and protruding into the slots, wherein the insulating layer comprises a base *oxide* layer, a *low k* dielectric layer, and a cap *oxide* layer, and a conductive top layer disposed on top of the insulating layer, where the conductive base layer and the conductive top layer are not directly physically contacting one another.

Fujiki et al. do not describe such a bonding pad. First, Fujiki et al. do not describe the insulating layer, where a low k layer is sandwiched between a base oxide layer and a cap oxide layer. Kane et al. do not remedy the deficiency of Fujiki et al. Kane et al. describe a transistor structure 1 (note the source/drain areas 60 and 70, the gate electrode 40, the gate oxide 50) that underlies three insulating layers, which are a boron phosphorous silicon glass dielectric insulator 90, a dielectric insulator 100 (which may be a material such as TEOS, BPSG, low-k dielectric materials, or the like), and a high-k (i.e. typically having a dielectric constant of 12 or greater) dielectric film 120.

Thus, the composite insulating layer of Kane et al. is a *glass, low-k, high-k* sandwich, whereas the composite insulating layer of the present invention as claimed is an *oxide, low-k, oxide* sandwich. These two film stacks are not the same. Thus, the combination of Fujiki et al. and Kane et al. do not obviate the present invention as claimed.

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The examiner states that “with respect to the insulating layer composition, the claimed materials would have been obvious, since it has been held that to be within the general skill of a worker in the art to select known material on the basis of its suitability for intended use [is] a matter of obvious design choice.” The examiner has misapplied *In re Leshin*, 235 USPQ 416. What the court said was “mere selection of known plastics to make a container-dispenser of a type made of plastics prior to the invention, the selection of the plastics being on the basis of suitability for the intended use, would be entirely obvious; and in view of 35 USC 103 it is a wonder that the point is even mentioned.” The application of this statement is inappropriate in the current situation.

In re Leshin is entirely moot as to the use of new combinations of materials within a structure. *In re Leshin* might be applicable if applicants had claimed a single given material instead of another for the construction of a simple device – like a lipstick tube, if the given material had also been commonly used for the purpose to which applicants applied it in the claim. However, this is not the case. Applicants have claimed a structure comprised of a novel combination of several layers in a specific order, and merely stating that the use of known materials is obvious is not a sufficient basis for the rejection in this situation.

Further, there is no permissible motivation for combining Fujiki et al. and Kane et al. The examiner states that the motivation is to provide semiconductor devices as taught by Kane, which is required by Fujiki. The semiconductor devices taught by Kane et al. are transistors. Fujiki et al. describe bonding pads. Thus, the reasoned combination of Fujiki et al. and Kane et al. are the bonding pads of Fujiki et al. and the transistors of Kane et al. There is motivation for blending the elements of the transistors of Kane et al. with the elements of the bonding pads of Fujiki et al. to produce some type of combined transistor-bonding pad structure, as suggested by the examiner.

Thus, not only does the combination of Fujiki et al. and Kane et al. fail to describe the elements as recited in claim 1, but the combination is not fairly made. Therefore, claim 1 patentably defines over Fujiki et al. in view of Kane et al. Reconsideration and allowance of claim 1 are respectfully requested. Dependent claims 2 and 4-9 depend from independent claim 1, and contain additional important aspects of the invention. Therefore, dependent claims 2 and 4-9 patentably define over Fujiki et al. in view of

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Kane et al. Reconsideration and allowance of claims 2 and 4-9 are respectfully requested.

Similar to that as described above in regard to claim 1, claim 19 claims, *inter alia*, an integrated circuit having a bonding pad with a conductive base layer having slots, an insulating layer disposed on top of the conductive base layer and protruding into the slots, wherein the insulating layer comprises a base *oxide* layer, a *low k* dielectric layer, and a cap *oxide* layer, and a conductive top layer disposed on top of the insulating layer, where the conductive base layer and the conductive top layer are not directly physically contacting one another.

The deficiencies of the combination of Fujiki et al. and Kane et al. in regard to this combination of elements are described above. Therefore, claim 19 patentably defines over Fujiki et al. in view of Kane et al. Reconsideration and allowance of claim 19 are respectfully requested. Dependent claims 21-23 depend from independent claim 19, and contain additional important aspects of the invention. Therefore, dependent claims 21-23 patentably define over Fujiki et al. in view of Kane et al. Reconsideration and allowance of claims 21-23 are respectfully requested.

CONCLUSION

Applicants assert that the claims of the present application patentably define over the prior art made of record and not relied upon for the same reasons as given above. Applicants respectfully submit that a full and complete response to the office action is provided herein, and that the application is now fully in condition for allowance. Action in accordance therewith is respectfully requested.

In the event this response is not timely filed, applicants hereby petition for the appropriate extension of time and request that the fee for the extension be charged to deposit account 12-2355. If other fees are required by this amendment, such as fees for additional claims, such fees may be charged to deposit account 12-2252. Should the examiner require further clarification of the invention, it is requested that s/he contact the undersigned before issuing the next office action.

To:


From: Rick Barnes

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Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By: 

Rick Barnes, 39,596

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